

WHAT IS CLAIMED IS:

1. A semiconductor device comprising:

a first wire and a pad portion thereof provided in  
a portion from an upper surface to an inner portion of  
a first insulation film provided above a substrate;

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a second insulation film provided on the first  
insulation film and the first wire;

a second wire provided to be exposed from an upper  
surface of the second insulation film in an upper  
portion of the pad portion of the first wire; and

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a contact plug provided to reach an inner portion  
of the pad portion of the first wire from an  
undersurface of the second wire.

2. The device according to claim 1, wherein at  
least a side portion of the contact plug is  
electrically connected to the pad portion of the first  
wire.

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3. The device according to claim 1, wherein the  
second wire is provided with a pad portion having  
an undersurface spaced apart from the upper surface of  
the pad portion of the first wire.

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4. The device according to claim 1, wherein the  
contact plug is formed integrally with the second wire.

5. The device according to claim 1, wherein the  
second wire and the contact plug are formed of at least  
one of an aluminium monomer and a compound containing  
aluminium.

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6. The device according to claim 1, wherein a plurality of the contact plugs are provided.

7. The device according to claim 2, wherein the contact plug is provided with a lower end portion  
5 positioned at a height that is the same as or lower than that of the undersurface of the pad portion of the first wire.

8. The device according to claim 3, wherein the second insulation film is sandwiched between the  
10 undersurface of the pad portion of the second wire and the upper surface of the pad portion of the first wire.

9. A manufacturing method of a semiconductor device, comprising:

forming a recess for a first wire and a recess for  
15 a pad portion of the first wire;

forming the recess for the first wire in a portion from an upper surface of a first insulation film provided above a substrate to an inner portion thereof;

forming the recess for the pad portion of the  
20 first wire in continuation to the recess for the first wire while selectively leaving the first insulation film;

forming the first wire and the pad portion of the first wire by burying a first conductive material into  
25 inner portions of the recess for the first wire and the recess for the pad portion of the first wire;

providing a second insulation film onto the first

insulation film wherein the first wire and the pad portion of the first wire are formed;

forming a recess for a second wire and a contact hole by removing the second insulation film on the pad portion of the first wire and the first insulation film selectively left; and

forming the second wire and a contact plug by burying a second conductive material into inner portions of the recess for a second wire and the contact hole.

10. The manufacturing method according to claim 9, wherein the contact plug is formed integrally with the second wire.

11. The manufacturing method according to claim 9, wherein forming the recess for the pad portion of the first wire, the size of the first insulation film selectively left is slightly larger than the size of the contact hole.

12. The manufacturing method according to claim 9, wherein the second wire and the contact plug are formed of at least one of an aluminium monomer and a compound containing aluminium.

13. The manufacturing method according to claim 9, wherein the second wire is formed by patterning the second conductive material or a third conductive material.

14. A manufacturing method of a semiconductor

device, comprising:

forming a recess for a first wire and a recess for a pad portion of the first wire;

5 forming the recess for the first wire in a portion from an upper surface of a first insulation film provided above a substrate to an inner portion thereof;

forming the recess for the pad portion of the first wire in continuation to the recess for the first wire while the first insulation film is selectively  
10 left;

forming the first wire and the pad portion of the first wire by burying a first conductive material into inner portions of the recess for the first wire and the recess for the pad portion of the first wire;

15 providing a second insulation film onto the first insulation film wherein the first wire and the pad portion of the first wire are formed;

forming a contact hole by removing the first insulation film selectively left and second insulation  
20 film existing thereon;

forming a contact plug by burying a second conductive material into an inner portion of the contact hole;

25 providing a third insulation film on the second insulation film wherein the contact plug is formed;

forming a recess for the second wire by removing the third insulation film existing on the pad portion

of the first wire such that an upper surface of the contact plug is exposed; and

forming the second wire by burying a third conductive material into an inner portion of the recess  
5 for the second wire.

15. The method according to claim 14, wherein forming the recess for the pad portion of the first wire, the size of the first insulation film selectively left is slightly smaller than the size of the contact  
10 hole.

16. The method according to claim 14, wherein the same conductive material is used as the second conductive material and the third conductive material.

17. The method according to claim 14, wherein the  
15 second wire and the contact plug are formed of at least one of an aluminium monomer and a compound containing aluminium.

18. The method according to claim 14, wherein the  
20 second wire is formed by patterning the second conductive material or a third conductive material.